

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

TECHNICAL REPORT

FOR

TENTATIVE ORDER NO. R9-2006-0028

**WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT
SECTION 401 WATER QUALITY STANDARDS CERTIFICATION**

FOR

**STONEWOOD, INC., THE VINEYARD PROJECT,
CITY OF MURRIETA, RIVERSIDE COUNTY**

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TENTATIVE ORDER NO. R9-2006-0028 WASTE DISCHARGE REQUIREMENTS AND CLEAN WATER ACT SECTION 401 WATER QUALITY STANDARDS CERTIFICATION FOR STONEWOOD, INC., THE VINEYARD PROJECT, CITY OF MURRIETA, RIVERSIDE COUNTY

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I. SUMMARY

The California Regional Water Quality Control Board, San Diego Region, (Regional Board) is considering adoption of Tentative Order No. R9-2006-0028, establishing waste discharge requirements (WDRs) for the discharge of fill material to waters of the State by Stonewood Inc. (Discharger) as part of The Vineyard project in the City of Murrieta, Riverside County. Tentative Order No. R9-2006-0028 also establishes the necessary conditions on the project for the Regional Board to certify, pursuant to Section 401 of the Clean Water Act, that there is reasonable assurance The Vineyard project will not reduce water quality below applicable State water quality standards. Water quality standards include beneficial uses, water quality objectives, and the State's non-degradation policy, State Water Resources Control Board Resolution No. 68-16, that calls for the protection and maintenance of existing high-quality waters.

The discharge of fill to waters of the State will cause and threaten to cause conditions of pollution and nuisance and loss of beneficial uses. Preventative and compensatory mitigation measures have been proposed, including plans for post-construction storm water management, habitat mitigation, and compliance with the statewide requirements for construction stormwater discharges. Tentative Order No. R9-2006-0028 includes requirements to implement these measures and to report on construction and habitat mitigation progress.

II. REGULATORY BACKGROUND

Section 13260(a) of the California Water Code (Water Code) requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the waters of the State, file a

report of waste discharge (ROWD). The discharge of dredged or fill material may constitute a discharge of waste that could affect the quality of waters of the State. Water Code section 13263(a) requires that WDRs be prescribed as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. Such WDRs must implement any relevant water quality control plans, taking into consideration beneficial uses to be protected, the water quality objectives reasonably required for those purposes, other waste discharges, the need to prevent nuisance, and the provisions of section 13241 of the Water Code.

The State of California largely relies on Section 401 of the federal Clean Water Act (CWA) (33 U.S.C. § 1341) to regulate discharges of dredged or fill material to waters of the State. That section requires an applicant to obtain "water quality certification" from California that the project will comply with State water quality standards before certain federal licenses or permits may be issued. The permits subject to section 401 include permits for the discharge of dredged or fill materials (CWA section 404 permits) issued by the U.S. Army Corps of Engineers (Corps). WDRs under the Porter-Cologne Water Quality Control Act are typically waived for projects that are certified under Clean Water Act section 401¹. In recent years the Corps has increasingly determined that discharges of fill to some surface waters are not subject to CWA section 404 permits. As a result, WDR waivers associated with discharges of fill subject to section 401 Certifications do not apply to discharges of fill to surface waters deemed outside of Corps jurisdiction.

To streamline the issuance of WDRs for projects that propose to place small amounts of fill into non-federal waters, the State Water Resources Control Board (State Board) issued Order No. 2004-0004-DWQ, "*Statewide General Waste Discharge Requirements for Dredge and Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction.*" These General WDRs are restricted to dredged or fill discharges of not more than two-tenths (0.2) of an acre and 400 linear feet for fill and excavation discharges. In addition and pursuant to CWC section 13263(a), the Regional Boards must prescribe WDRs for proposed discharges of fill to non-federal waters that exceed the thresholds in Order No. 2004-0004-DWQ.

On April 15, 2005 the Discharger submitted an incomplete ROWD and an incomplete application for Section 401 Certification for discharges of fill associated with The Vineyard project on Tract 28903 in the City of Murrieta (Project). An ROWD was submitted to the Regional Board pursuant to Water Code section 13260 because the proposed amount of fill into non-federal waters of the State exceeds the numerical thresholds limit of State Board Order No. 2004-0004-DWQ. Following the submittal of additional materials, the ROWD and the 401 Certification application were deemed complete by the Regional Board on February 23, 2006. An extension of the federal period for Certification was granted by the Corps on April 20, 2006 to allow the Regional Board to consider section 401 Certification concurrent with WDRs. As a result,

¹ The discharge associated with a Section 401 water quality certification is regulated under California Regional Water Quality Control Board, San Diego Region, Waiver of Waste Discharge Requirements (Waiver Policy) No. 17.

Tentative Order No. R9-2006-0028 serves as both section 401 Water Quality Certification and as waste discharge requirements for discharges of fill to waters of the State.

III. PROJECT DESCRIPTION

The proposed project would develop residential housing and associated infrastructure on Tract 28903 in the northwest portion of the City of Murrieta (Figures 1, 2, and 3). The site is located in the City of Murrieta, Riverside County on the west side of Murrieta Creek, and near the intersection of Vineyard Parkway and Hayes Avenue. The project includes the subdivision and construction of approximately 464 acres of land in general accordance to Vesting Tentative Tract 28903 as approved by the City of Murrieta on April 14, 1999. The proposed project includes 969 single family residential dwellings on 302 acres, open space lots on 127 acres, a recreational center on 5 acres, parks and a school site on 21 acres, and street and landscaping infrastructure on approximately 10 acres. Grading is proposed on approximately 408 acres, including all utility improvements, drainage and retention basins, and would involve approximately 14.9 million cubic yards of cut and fill. Natural open space will comprise approximately 56 acres.

The project site contains 22 drainages subject to U.S. and/or State jurisdiction, none of which consist of wetlands (Figure 4). The Discharger proposes to discharge fill material into portions of 19 of the drainages in order to accommodate the planned development. Fill will be placed into 0.74 acres (15,822 linear feet) of waters of the State. The discharge of fill to 0.39 of the 0.74 acres requires permitting subject to sections 401 and 404 of the federal Clean Water Act [33 USC 1342 & 1344] because the fill locations were determined by the Corps to be federal waters of the U.S. The discharge of fill to the remaining 0.35 acres of waters of the State was determined by the Corps to be outside of federal jurisdiction and is, therefore, subject to permitting from the State, but not the Corps. The proposed fill will result from construction of creek crossings, storm drain infrastructure, roads and suitable housing pads. Approximately 0.33 acres of federal waters and 0.12 acres of non-federal waters of the State within the project area will be left undisturbed.

IV. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Before the Regional Board can issue an affirmative water quality certification, it must be provided a final environmental document meeting the criteria of the California Environmental Quality Act (CEQA). The CEQA document must fully disclose the potential significant adverse impacts of the project and identify measures to avoid, minimize, rectify, reduce or compensate for the impacts identified and to include a monitoring and reporting program to ensure compliance with the proposed mitigation measures.

According to the CEQA Guidelines "mitigation" includes any of the following:

1. Avoiding the impact altogether by not taking an action or part of an action;
2. Minimizing the impact by limiting the degree or magnitude of the action;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation or maintenance actions; or
5. Compensating for the impact by providing replacement or substitute resources or environments.

In December 1989 the County of Riverside, acting as CEQA Lead Agency, finalized a Program Environmental Impact Report (EIR) for Specific Plan No. 215 (The Vineyard). In 1992 the City of Murrieta approved The Vineyard Specific Plan (Specific Plan no. 215) Substantial Conformance No.3 and re-certified a Final EIR as the appropriate CEQA determination for the planned project area. Subsequent property owners proposed a modified project (Vesting Tentative Tract No. 28903) to the City, which then approved a final Addendum to the Certified EIR (SCH no. 87021614) on April 14, 1999 for the currently proposed Vineyard project. The 1999 Addendum determined that environmental impacts from the modified project are either reduced compared to the 1992 project or are directly comparable to the impact forecasts in the certified EIR.

At the time of CEQA approvals from the County and City, however, final stormwater management and biological resource mitigation plans had not been developed. The EIR requires deferred development of the actual plans to mitigate various potential significant adverse impacts. For instance, the 1999 Addendum EIR identified the following mitigation measures (paraphrased) to reduce project impacts to water quality and beneficial uses to below a level of significance:

1. Develop and implement an erosion control plan with appropriate measures to restrict sediments from leaving the site and to mitigate the effect of increased runoff at points of discharge;
2. Design flood control facilities to minimize runoff from the site, increase the aquifer recharge potential, and not cause damage to downstream areas;
3. Implement a site drainage plan to mitigate the impact of increased runoff;
4. Implement a water quality program for post-construction;
5. Provide that approximately 20% of total site acreage will remain in a natural condition, including open space within Murrieta Creek, several smaller tributaries, and many hillside areas; and

6. Obtain water and sewer service from the Rancho California Water District.

The Discharger has proposed mitigation for the impacts to waters of the State and beneficial uses that are consistent with the required EIR mitigation measures. Although the EIR deferred development of the mitigation plans, the Regional Board has required such plans to be developed as part of the review of the ROWD and application for section 401 Certification.

V. WATER QUALITY STANDARDS AND MITIGATION MEASURES

Section 303 of the federal Clean Water Act (33 U.S.C. §1313) defines the term water quality standards as the uses of the surface waters, the water quality criteria which are applied to protect those uses, and an antidegradation policy². A water quality standard defines the water quality goals for a water body by designating the use or uses to be made of the water body, by setting criteria to protect the uses, and by protecting water quality through non-degradation provisions. Under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Chapter 2 §13050), these concepts are defined separately as beneficial uses and water quality objectives. Beneficial uses and water quality objectives are required to be established for all waters of the State, both surface and ground waters.

The project area is within the Murrieta Hydrologic Subarea (HSA 902.32), with portions of the site directly tributary to Murrieta Creek and Cole Creek. Cole Creek is a tributary to Murrieta Creek. Murrieta Creek within HSA 902.32 is on the Clean Water Act Section 303(d) list of impaired waterbody segments for phosphorus from urban runoff and unknown point and nonpoint sources. The project site was previously an operational vineyard, which may have contributed to nonpoint source loadings of phosphorus associated with fertilizers. Measures have been proposed by the Discharger to mitigate the threat of excessive phosphorus loadings to Murrieta Creek from the proposed residential development. These measures include site design, source control, and treatment management practices as proposed in the *Water Quality Technical Report for The Vineyards (sic)*, Hunsaker & Associates San Diego, Inc. May 17, 2006) and *The Vineyard Habitat Mitigation and Monitoring / Water Quality Plan* (PCR Services Corporation, January 2006).

A qualitative functional analysis concluded that the drainage areas to be filled in by the project currently rate low to medium for most evaluation criteria³. Nonetheless, the discharge of fill to create housing pads and roads will directly eliminate beneficial uses

² Pursuant to the federal Clean Water Act, water quality standards are composed of three parts: (1) designated uses, e.g., protection of fish and wildlife, recreation and drinking water supply (40 C.F.R. 131.10); (2) numeric or narrative water quality criteria to protect those uses (40 C.F.R. 131.11); and (3) an antidegradation policy (40 C.F.R. 131.12).

³ *The Vineyard Habitat Mitigation and Monitoring / Water Quality Management Plan*. PCR Services Corporation. January 2006.

because portions of waterbodies will be eliminated. Indirect effects to water quality and beneficial uses can also be expected downstream of fill discharges because of lost upstream pollutant assimilative capacity and infiltration and the hydromodification effects of confining upstream flows to pipes. Additionally, the discharge of material to create energy dissipation within an open channel may degrade WARM and WILD beneficial uses because riprap is typically a lower quality substrate than natural channel beds for vegetation and wildlife.

Order No. R9-2006-0028 establishes requirements to implement mitigation plans in order to avoid, minimize, rectify, reduce, or compensate for the impacts to water resources associated with the planned discharges of fill to waters of the State/U.S. Those requirements include restoration and enhancement of water resources and the use of best management practices to protect receiving waters from pollutants in stormwater discharges.

A. Habitat Creation and Enhancement

Habitat mitigation has been proposed in consideration of the EIR requirements and subsequent consultation with the Regional Board and Corps. *The Vineyard Habitat Mitigation and Monitoring / Water Quality Plan* (PCR Services Corporation, January 2006) proposes the restoration and enhancement of 2.7 acres of riparian habitat and ephemeral streambed on-site and off-site adjacent to the project (Figure 5). In addition, two preservation credits have been purchased from the Barry Jones Wetland Mitigation Bank in southwest Riverside County.

The objective of the Mitigation Plan is to restore functions of riparian habitat along Cole Creek and tributaries identified as "H" and "I" thereto. Activities within Drainage "I" will include exotic species eradication and seeding/planting of native vegetation. Activities in Drainage "H" will involve re-aligning the degraded channel to match the upstream topography, creating increased microtopographic complexity, and planting of a native vegetation buffer. Activities at the Cole Creek "off-site" buffer will involve weed eradication and reestablishment of native riparian species. The Mitigation Plan includes a functional assessment monitoring program to ensure that the restoration is successful. The Monitoring and Reporting Plan for Order No. R9-2006-0028 is based on the proposed monitoring plan.

Long-term management and oversight of the mitigation areas is expected to be done by the City of Murrieta. The City currently has title to the off-site Cole Creek mitigation area, and the on-site mitigation areas will be transferred to the City following restoration.

B. Compliance with National Pollutant Discharge Elimination System (NPDES) Requirements for the Discharge of Pollutants in Urban Runoff and Stormwater

The proposed project may threaten beneficial uses through the discharge of pollutants into tributaries to Murrieta Creek and Cole Creek in urban runoff and stormwater (e.g., oil and grease, sediments, heavy metals, pathogens, nutrients, trash, etc.) during

project construction and the subsequent proposed land use. The Discharger proposes to mitigate the potential threats to beneficial uses by implementing appropriate construction and post-construction plans that rely on the use of best management practices (BMPs) consistent with NPDES requirements.

During construction, the project will be subject to State Board Order No. 99-08-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002, *Waste Discharge Requirements (WDRs) For Discharges Of Storm Water Runoff Associated With Construction Activity*. Requirement B.5 of Order No. R9-2006-0028 calls for compliance with Order No. 99-08-DWQ. The property owner has already filed a Notice of Intent for coverage under the NPDES Order (WDID 9 33C326166). In addition, CEQA mitigation provisions require the Discharger to develop and implement an erosion control plan with appropriate measures to restrict sediments from leaving the site and to mitigate the effect of increased runoff at points of discharge.

The discharger has proposed to implement a plan for the management of post-construction stormwater discharges associated with the proposed project (*Water Quality Technical Report for The Vineyards (sic)*, Hunsaker & Associates San Diego, Inc. May 17, 2006). Treatment BMPs consist of one vegetated swale in the north portion of the project and four areas with a combination of detention basin and proprietary treatment devices (Figure 6). The following table lists the proposed BMPs.

Table 1. Proposed Water Quality Best Management Practices (BMPs)

BMP Class	Proposed Water Quality BMP
Site Design	<ul style="list-style-type: none"> • Minimize impervious footprint • Conserve natural areas (approximately 20% of site) • Minimize directly connected impervious areas • Channel and slope protection with landscaping
Source Control	<ul style="list-style-type: none"> • Homeowner education regarding fertilizer/herbicide application and integrated pest management • Homeowner education regarding household hazardous materials management • Implement a homeowners' education program with monitoring • Storm drain stenciling • Install efficient irrigation practices for common areas
Treatment	<ul style="list-style-type: none"> • Four detention basins, each with a <i>Vortechs</i> Stormwater Treatment System serving as pre-treatment. • One vegetated swale

The 1999 Addendum to the Certified EIR states that discharges into surface waters are managed under Countywide and project-specific NPDES permits, but does not identify specific BMPs or standards. The original EIR mitigation measure for post-construction

water quality BMPs was considered sufficient by the City of Murrieta when it issued the 1999 EIR Addendum. The EIR mitigation measure requires that urban runoff impacts be mitigated by employing a water quality program consistent with federal Environmental Protection Agency guidance. The EIR notes that approval of the water quality program shall be obtained prior to initiating occupancy of project facilities. It is not certain whether the City will require BMPs in accordance with local regulations in effect at the time of the original EIR approval, the 1999 Addendum, or more recent regulations.

The post-construction BMPs for stormwater discharges proposed by the discharger and required by Tentative Order R9-2006-0028 are, however, generally consistent with the current municipal NPDES requirements for the City of Murrieta in Regional Board Order No. R9-2004-0001⁴. Specifically, a combination of site design, source control, and treatment BMPs have been proposed. The treatment BMPs have been designed to mitigate, prior to discharging to receiving waters, the volume and/or flow-based numerical criteria established within the municipal NPDES permit requirements.

VI. RECOMMENDATION

Adoption of Order No. R9-2006-0028 is recommended. The requirements are satisfactory to compensate for anticipated losses to beneficial uses and to protect existing and preserved beneficial uses on site and downstream.

Figures

1. Regional Location
2. Project Vicinity
3. USGS Map
4. Jurisdictional Areas Map
5. Mitigation Area Plan
6. Site Plan and Post-construction BMP Map

⁴ NPDES No. CAS0108766, *Waste Discharge Requirements For Discharges Of Urban Runoff From The Municipal Separate Storm Sewer Systems (MS4s) Draining The County Of Riverside, The City Of Murrieta, The City Of Temecula And The Riverside County Flood Control And Water Conservation District Within The San Diego Region.*

Figure 1 Regional Location

The project is located in the City of Murrieta, Riverside County

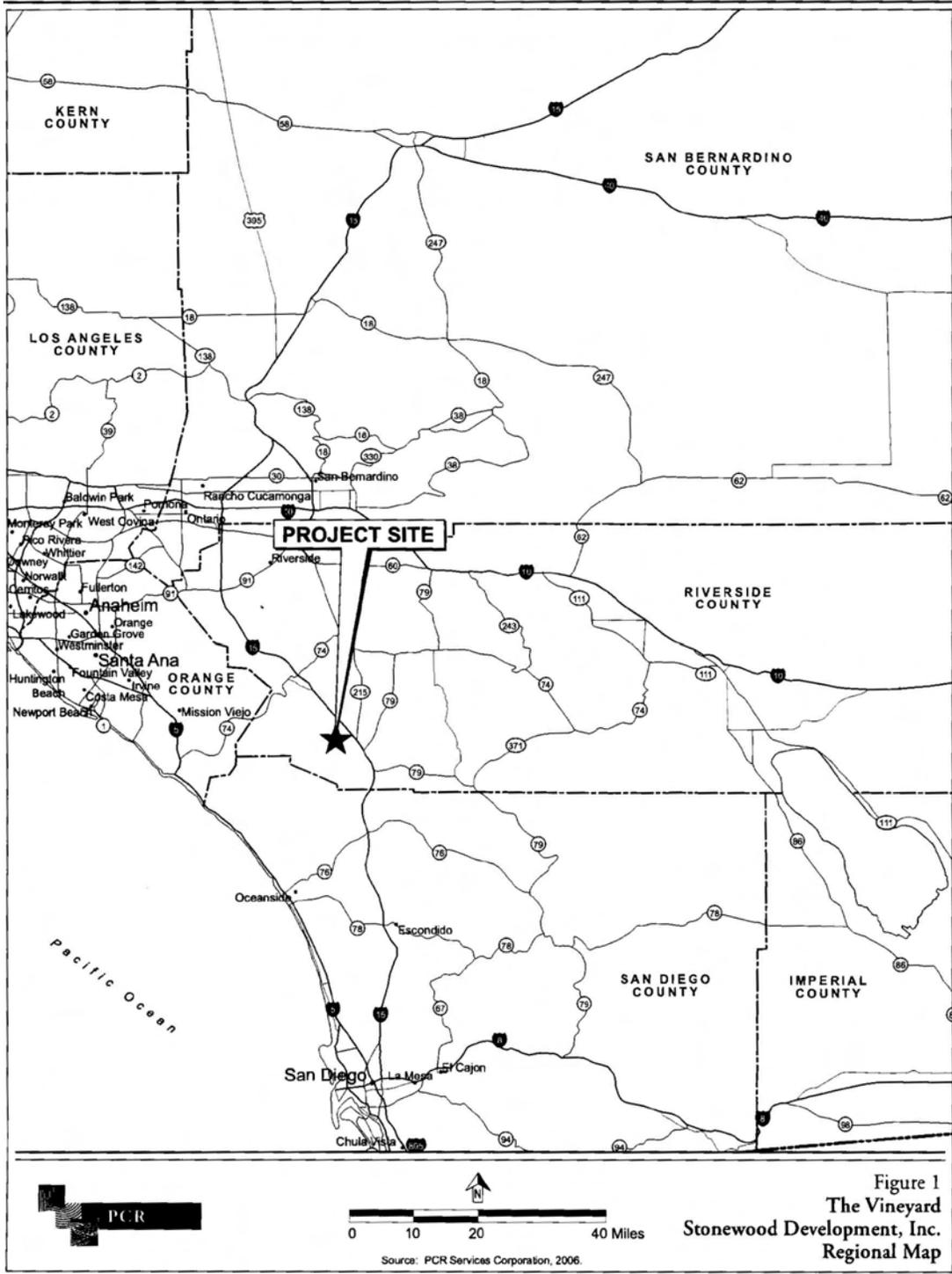
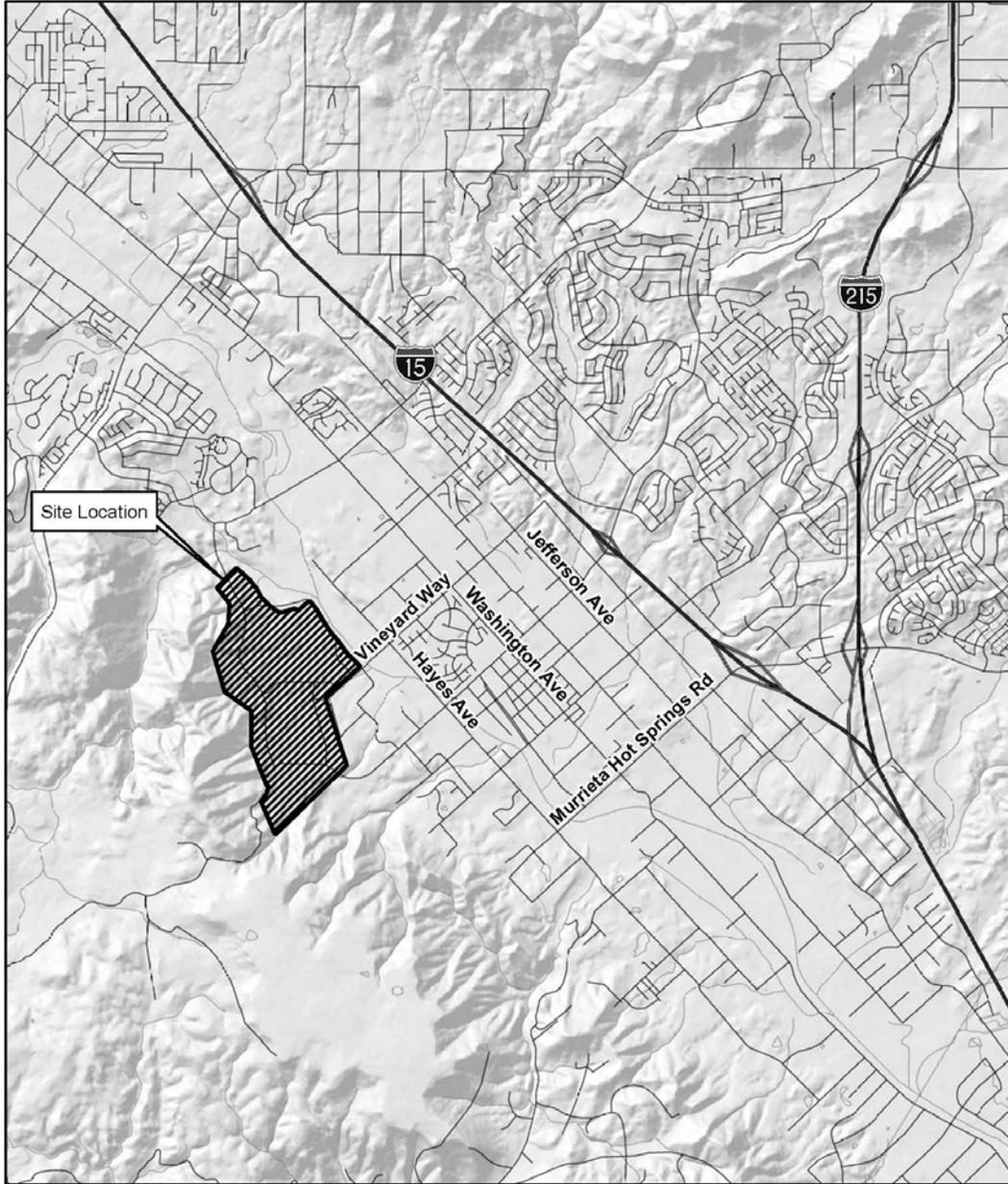


Figure 2 Project Vicinity

The project is located southwest of Murrieta Creek, at the current terminus of Vineyard Parkway, near its intersection with Hayes Avenue.



SOURCE: US Census 2000 Street Data

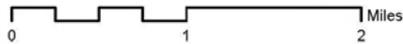
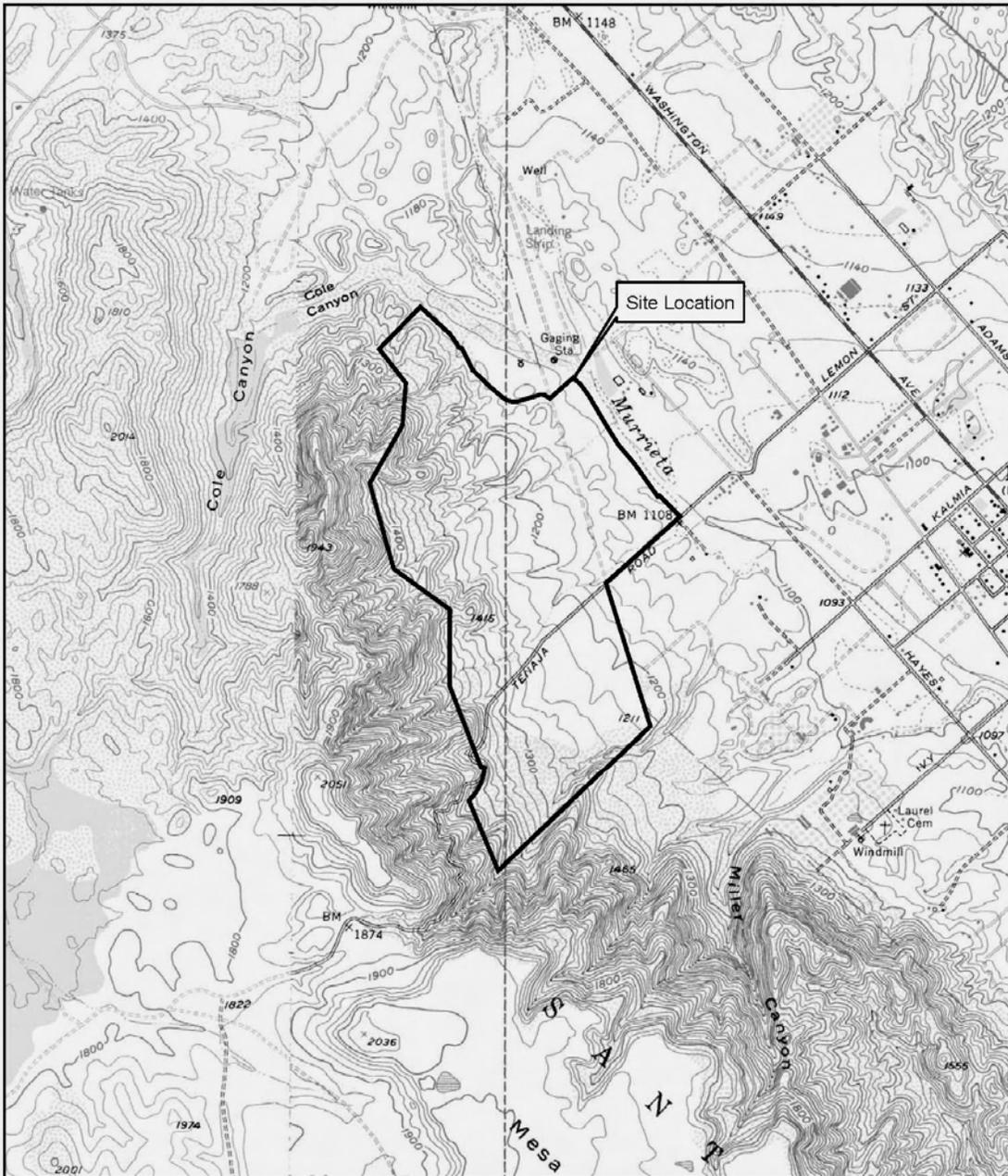


FIGURE 2 - VICINITY MAP

TENTATIVE TRACT MAP 28903

PRINCIPE AND ASSOCIATES

Figure 3
USGS Map



Base Map Source: USGS 7.5 Min. Murrieta and Wildomar, CA Quads

FIGURE 3 - USGS MAP

0 2,000 4,000 Feet

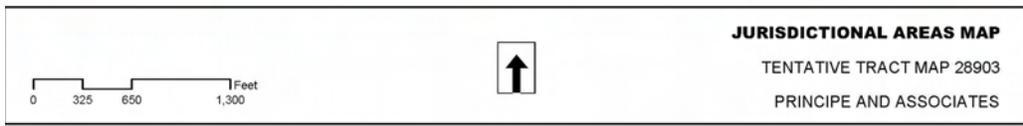
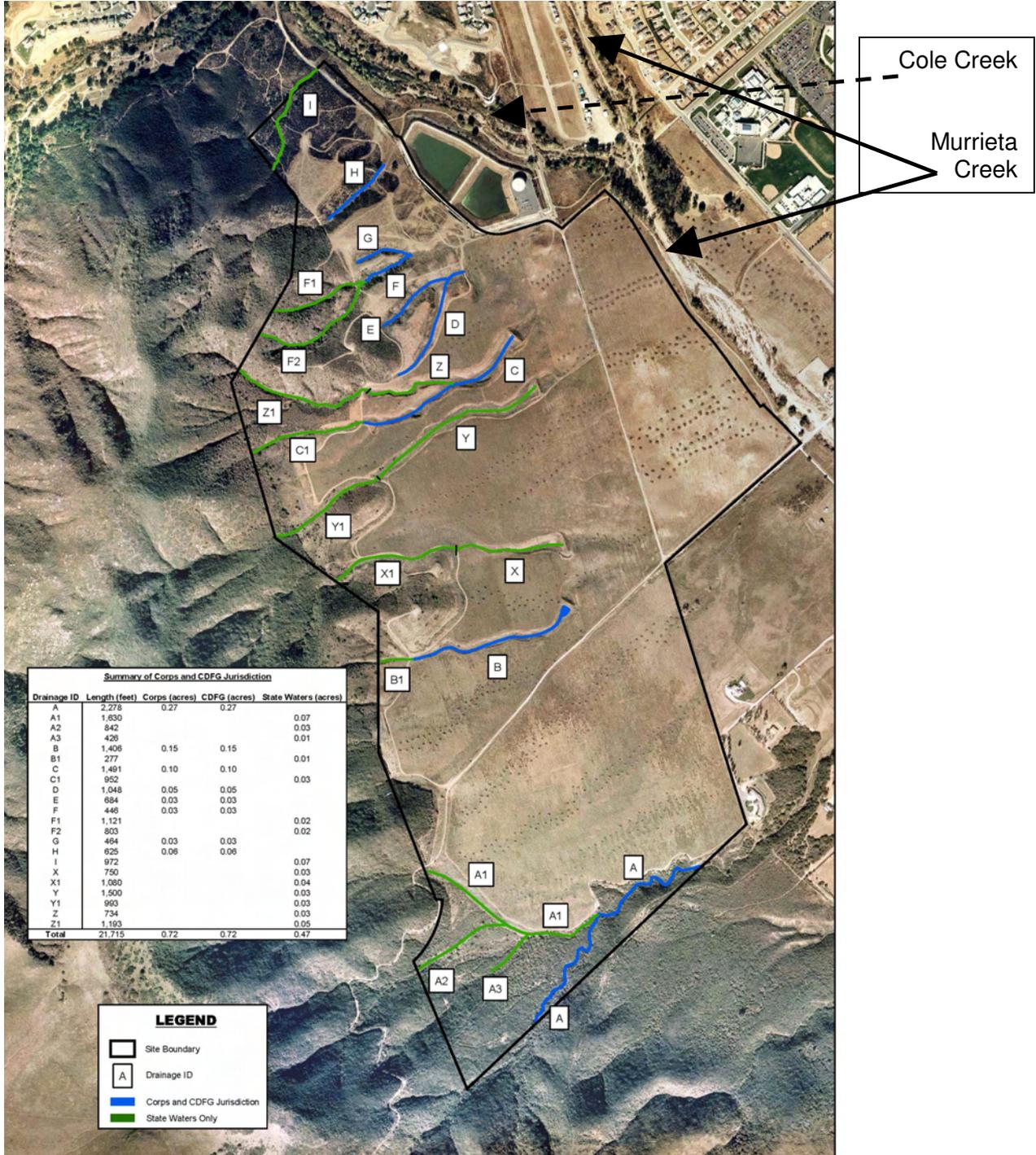


TENTATIVE TRACT MAP 28903

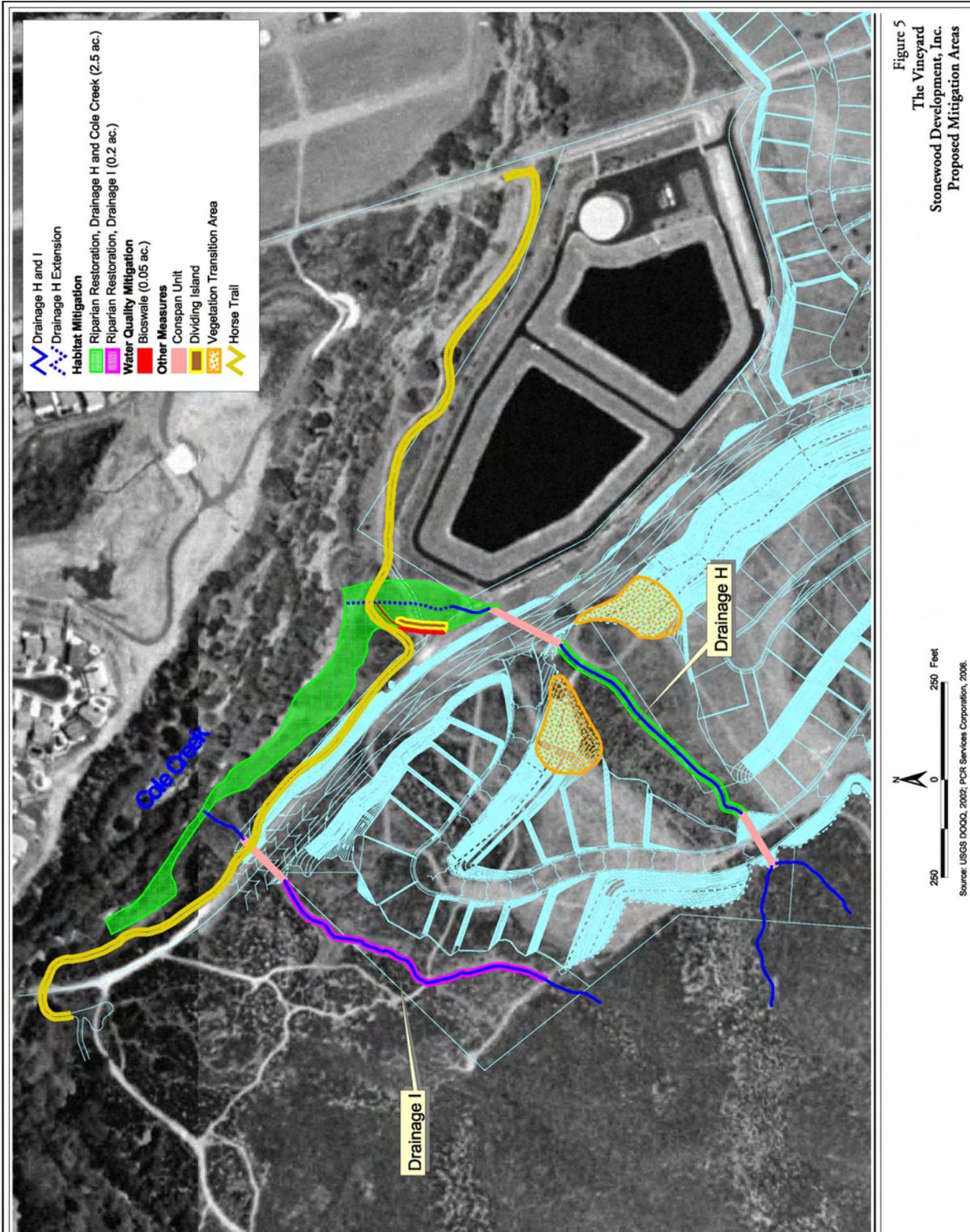
PRINCIPE AND ASSOCIATES

Figure 4
Jurisdictional Areas Map

Cole Creek and Murrieta Creek are located to the east of the project boundaries.



**Figure 5
Mitigation Area Plan**



**Figure 5
The Vineyard
Stonewood Development, Inc.
Proposed Mitigation Areas**

Figure 6
Site Plan and Post-Construction Treatment BMPs

Post-construction treatment BMPs consist of one vegetated swale and four detention basins with a proprietary pre-treatment device.

